DOCUMENT RESUME

ED 422 905 IR 019 103

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TITLE Meeting the Technology Challenge: Building New Learning Communities.
INSTITUTION Office of Educational Research and Improvement (ED), Washington, DC. Office of Reform Assistance and Dissemination.
REPORT NO ORAD-98-1402
PUB DATE 1998-10-00
NOTE 36p.; Printed in colored ink on colored paper.
PUB TYPE Reports - Descriptive (141)
EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *Computer Uses in Education; Curriculum Development; Educational Change; *Educational Objectives; Educational Technology; *Federal Aid; Federal Programs; *Grants; Information Networks; *Instructional Innovation; *Partnerships in Education; School Districts; Student Needs; Teacher Education
IDENTIFIERS *Technology Integration

ABSTRACT

To meet the nation's need for a well-educated workforce in the 21st century, President Clinton and Vice President Gore have challenged the nation's educators and high technology industry leaders to work together on new ways to accelerate student learning with technology. The Technology Innovation Challenge Grants represented in this publication address multiple focus areas. Across the national network of 62 district partnerships, each project addresses more than one of the eight topical areas. Areas are: (1) "Partnering with Businesses and Communities to Provide the Best Technology for Schools"; (2) "Linking Classrooms to the World Via Electronic Networks"; (3) "Empowering Teacher with the Technology Skills to Customize Student Learning"; (4) Integrating Technology into Curriculum Reform"; (5) "Utilizing Technology to Meet the Needs of At-Risk Youth"; (6) " Preparing Students for the Workforce of the Future"; (7) "Building New Learning Communities"; and (8) "Reconnecting Classrooms to the Home." This publication describes selected districts' projects for each of these eight areas. A map of the 62 Technology Innovation Challenge Grants, charts of partners and matching commitments, and a directory of technology innovation challenge grants are also included. (AEF)

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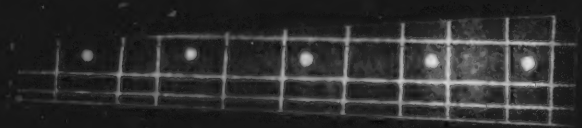
Meeting the

TECHNOLOGY CHALLENGE



Building New Learning Communities

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Meeting the

TECHNOLOGY CHALLENGE

Building New Learning Communities

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Educators:

To meet the nation's need for a well educated workforce in the 21st Century, President Clinton and Vice President Gore have challenged the nation's educators and high technology industry leaders to work together on new ways to accelerate student learning with technology. School districts, technology business leaders, and community organizations across the country are rising to meet the challenge through partnerships supported by these 62 Technology Innovation Challenge Grants.

The Challenge Grants described in this publication are making a significant investment in the future of their children. They are pioneers in the development of new approaches to increase learning and bring new worlds of knowledge to our students. We strongly believe that if we help all our students to master the use of these new learning tools we will give a generation of young people the skills they need to enter a global economy.

The 62 school district partnerships that have received grants under the Technology Innovation Challenge Grant Program are located in 33 states. They are working with partners in more than 548 school districts, 239 business firms, and 140 colleges and universities. In addition, more than 375 community organizations and government agencies are supporting their efforts. The grants range in size from $850,000 to $9.5 million for 5 years. The business and community partners have generated matching non-federal commitments valued at more than $928 million.

Challenge Grant communities are working on integrating new technologies into state or local education improvement efforts that have been stimulated by a growing national commitment to raising education standards. Effective use of new technologies in these communities will contribute to improved student achievement in reading, writing, science, mathematics, history, the arts and other disciplines. Each project will support effective training for teachers and promote greater parent and community involvement in education. And each will help smooth the transition from school to careers and college by engaging students in real-life learning experiences through which they can develop the lifelong learning skills necessary to navigate the changing economy.

It is our goal in compiling this publication that you, our nation's educators, will use it as a resource to create and implement your own plans for integrating technology into teaching and learning to achieve excellence among all students.

Sincerely,
Linda G. Roberts
Director
Office of Educational Technology

The Technology Literacy Challenge

In response to the technology challenges facing American education, President Clinton and Vice President Gore announced the "Technology Literacy Challenge" on February 15, 1996. The challenge calls on business and community leaders to join forces with educators to guarantee every student in America can use computers and the information superhighway to prepare for responsible citizenship and productive employment in the 21st century. The Technology Literacy Challenge is targeted at four concrete goals: equipping all classrooms with modern computers, connecting all classrooms to the Internet; developing engaging software and networked learning content to help all students meet high standards; and preparing all teachers to integrate these new technologies into the curriculum.

The U.S. Department of Education is implementing the Technology Literacy Challenge through a two-part strategy consisting of the Technology Literacy Challenge Fund and Technology Innovation Challenge Grants. These twin initiatives strengthen the capacity of local partnerships to improve education by helping them to ensure new technologies support high quality learning, accelerate the use of proven technology innovations in education, and provide equitable technology access for all students.

Technology Innovation Challenge Grants will develop and refine new applications of technology that make significant contributions to school improvement. This year, states and local school systems will invest more than $4 billion in new technologies for schools. But, these investments will be worthless unless teachers and students know how to use these tools effectively to improve education. As development and demonstration testbeds, Technology Innovation Challenge Grants generate new learning applications and proven practices that may be successfully adapted in schools and communities across the nation. Challenge Grants buttress local investments in computers and telecommunications by helping educators ensure that new technologies pay off in improved education for the 21st century.

The Focus

Meeting the TECHNOLOGY CHALLENGE

Building New Learning Communities

1 Partnerships

Networks

3 Teacher Training

Curriculum Reform

5 At-Risk Youth

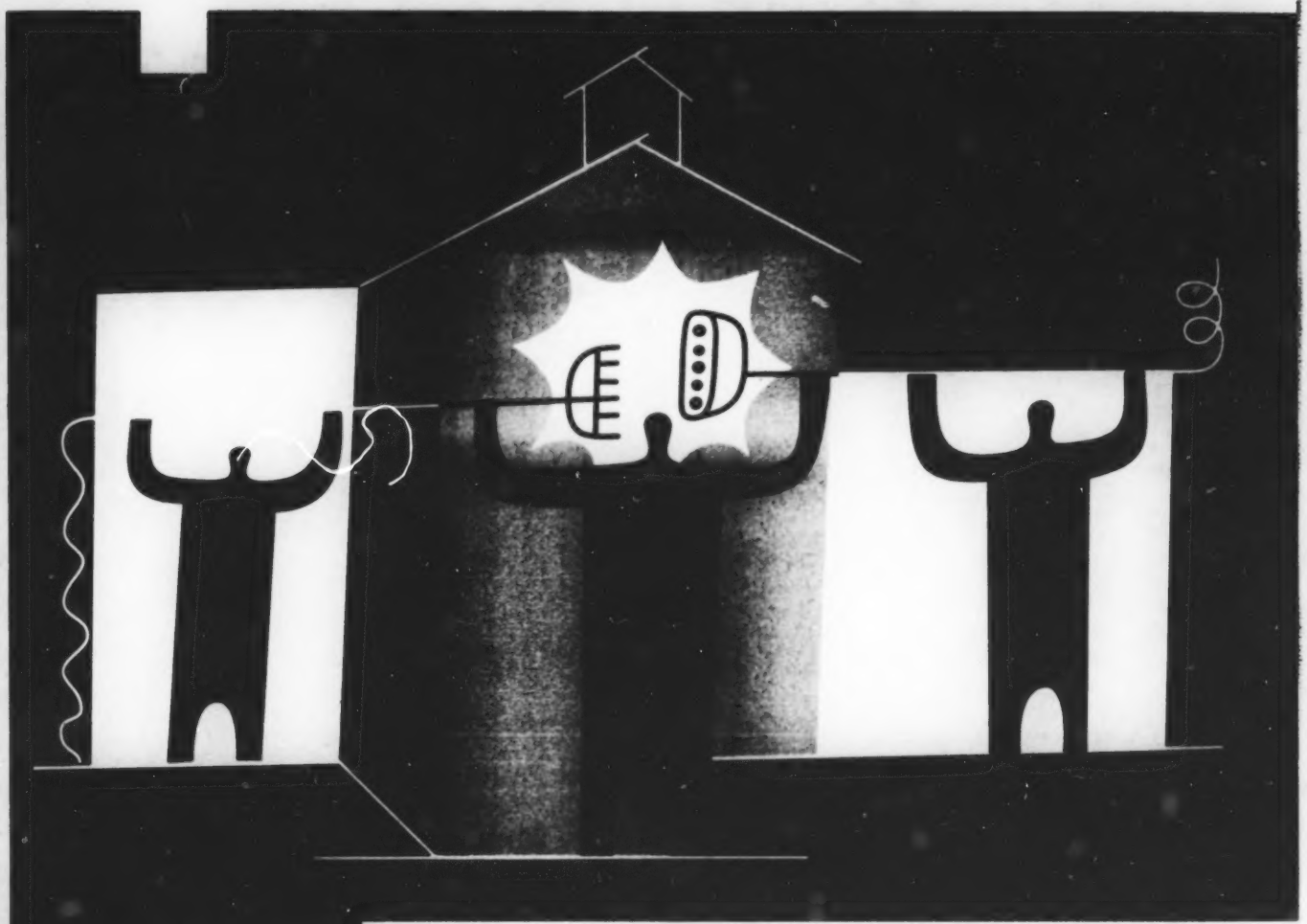
Future Workforce

7 Learning Communities

Home Linkages

The Technology Innovation Challenge Grants represented in this publication address multiple focus areas. Across this national network of 62 projects, each project addresses more than one of these topical areas. The eight topical areas outlined are representative of the range of work under way in all of these projects.

Partnering with businesses and communities to provide the best technology for schools



Community leaders and educators are transforming their classrooms into information age learning centers, but few school systems can afford the costs and risks associated with developing new, high quality applications of technology on their own. Similarly, few schools systems working alone have all the expertise and resources they need to integrate these learning innovations into the curriculum on a system-wide basis. Technology Innovation Challenge Grants provide seed money to form community partnerships that can bear these costs and marshal these resources. These consortia bring telecommunications, hardware and software expertise to schools in combination with the educational resources of universities, research institutes, libraries and museums.

Building community partnerships for learning
The Virtual High School Collaborative

This Virtual High School Collaborative, initiated by the **Hudson Public Schools** in Massachusetts, is developing and offering a rich variety of learning resources over the Internet. These net-courses serve the specialized needs of diverse students in both academic and vocational programs. No single high school has the resources to expand its offerings to meet all the needs of its students, but this collaborative of schools will pool their strengths to exploit Internet resources that can accelerate advanced study and the transition of their students into the workplace or postsecondary education. Almost 80 consortium partners will participate in this effort.

Creating partnerships to achieve high standards
Electronic Learning Marketplace

This Southern Maine Partnership involves 27 school districts, 3 private schools, 3 colleges, and the University of Southern Maine, who are working together to provide new learning opportunities that will enable students and teachers to meet the high academic standards defined by Maine's Learning Results. The schools are linked by an interactive, multimedia Web site that contains resources linked to teaching, learning, and assessment of progress toward the performance indicators defined by Maine's Learning Results. Each learning unit and related Internet resources will be keyed to specific grade level standards within each content area. A total of 35 consortium partners are participating in this activity with the **Old Orchard Beach School District** in Maine.

Building partnerships to improve achievement
Schools for Thought

The "Schools for Thought" pilot project, which began in middle schools, is being expanded to elementary and high schools. In this partnership between the **Metropolitan Nashville Public Schools** in Tennessee, Vanderbilt University, and a host of other consortium members, students will use computers to improve their achievement in mathematics, science, and literacy. Telecommunications and computers will bring challenging "real world problems" into the classroom, where students will be guided by their teachers to do research, define questions, develop solutions and reach conclusions. A total of 37 consortium members will participate.

Partnering with industry to revitalize schools
Silicon Valley Challenge 2000 Multimedia Project

This project is one element of an ambitious program to revitalize education in schools throughout Northern California's Silicon Valley. Under the leadership of the **San Mateo County Office of Education**, and a consortium of industry partners called Joint Venture: Silicon Valley (JVSV) Challenge 2000 Multimedia Project focuses on the use of multimedia technologies in the creation of student instructional units. Students pursue interdisciplinary projects built around real world problems using multimedia tools ranging from simple audio cassette players to sophisticated digital editing and web authoring programs. The project includes 37 schools, more than 750 teachers, and 23,000 students. Over 50 percent of these students come from low-income homes. The project addresses the objectives of the Goals 2000 Act, provides an extensive professional development program, contains a strong school-to-work element, and promotes reform at all levels of education.

Pioneering a school/government/business consortium
A Learning Cooperative: Connecting and Supporting Systemic Mathematics, Science, and Technology Initiatives via Telecommunication

The **Indianapolis Public Schools** in Indiana are pioneering a school/government/business consortium called A Learning Cooperative: Connecting and Supporting Systemic Mathematics, Science, and Technology Initiatives via Telecommunication. A telecommunication infrastructure links the North Central Regional Educational Laboratory, 25 schools in Indianapolis, 25 in Chicago, and 3 in Walled Lake, Michigan. The network delivers research-based curriculum and technical support to the participating program's teachers. The network allows exemplary teachers to conduct lessons at consortium schools via distance learning. Lessons are prepared in the form of Curriculum Support Units (CSUs), short video programs with supplementary text that teach specific key concepts. Through careful collaboration among the consortium members, the CSUs are designed to address basic math and science concepts, and to fit smoothly within the curriculum frameworks of each district.

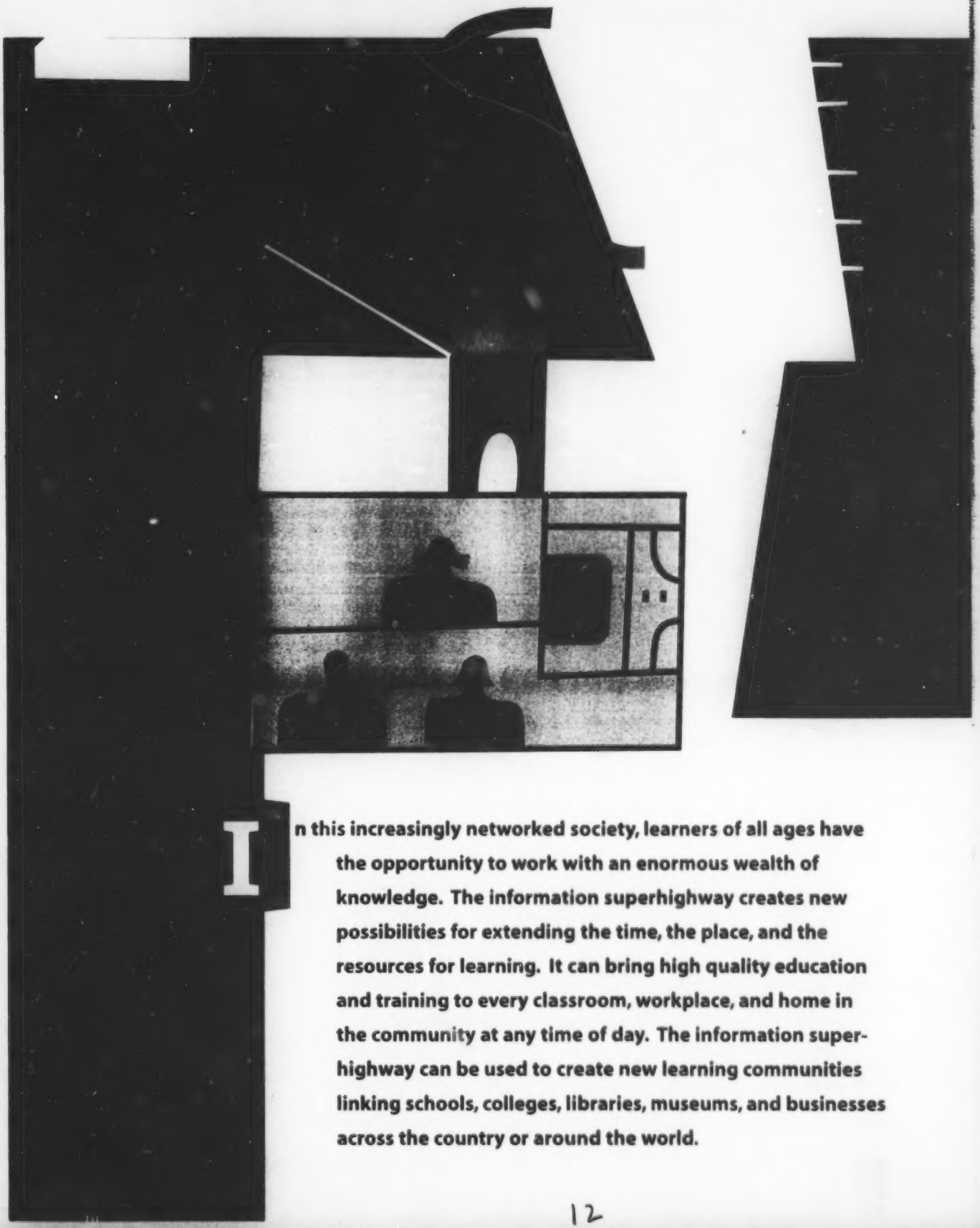
Creating strong alliances to improve learning
The Career Connection to Teaching with Technology Consortium

The "Career Connection to Teaching with Technology" Consortium, initiated by the **Volusia County School Board** in Florida, plans to involve outstanding teachers from geographically diverse public and private schools in the development of educational resources and to guide them in aligning their lessons with challenging state and national standards. University partners and software developers will collaborate with teachers to create three dimensional software that immerses students in a virtual reality learning environment. Industry partners have already designed a satellite delivery system, named the Digital Curriculum Intranet, which will allow software products, lessons and other resources to arrive at participating schools in a reliable, timely manner. The consortium of 30 diverse schools and other partners will work together to raise student achievement with technology.

Expanding the learning environment
The Chicago Neighborhood Learning Network (NLN)

The NLN is an initiative of the **Chicago Public Schools**, the Chicago Housing Authority, the Office of Catholic Education, and the Chicago Urban League working in partnership with neighborhood schools and organizations to fundamentally expand the learning environment beyond traditional classrooms. Through conveniently located neighborhood sites, the NLN will provide students, parents, and teachers with expanded access to learning resources that develop the lifelong learning skills needed to compete in the 21st century. The project mobilizes the full community of stakeholders on behalf of facilitating rigorous, standards-based instruction for all students and the strengthening of curriculum, professional development and assessment systems to support that instruction.

Linking classrooms to the world via electronic networks



In this increasingly networked society, learners of all ages have the opportunity to work with an enormous wealth of knowledge. The information superhighway creates new possibilities for extending the time, the place, and the resources for learning. It can bring high quality education and training to every classroom, workplace, and home in the community at any time of day. The information superhighway can be used to create new learning communities linking schools, colleges, libraries, museums, and businesses across the country or around the world.

Using a wireless network to improve information access
ACT Now! Project

The ACT Now! (Advanced Curriculum through Technology) project will create an extensive bank of teacher-developed, technology-enriched learning activities , and it will support the development of multimedia electronic portfolios by all students in the **Sweetwater Union High School District** in California. A wireless telecommunication network, to be established by the district and its partners, will link schools to each other, to community sites, and to worldwide resources, providing equitable access to information, including availability of training and career opportunities. To strengthen and expand San Diego's County-wide School-to-Career Partnership, Tech Prep career majors will be added, and teachers will be trained in current uses of technology in the work force. Students in all of the district's 19 secondary schools and in the Adult and Continuing Education Division will benefit from these new technologies. Twelve consortium members will contribute to this effort.

Creating an interactive network to improve curriculum and teacher training
The Education Connection

The **Norfolk Public School District** in Virginia, in collaboration with 6 public broadcasting organizations and 21 schools in 6 states, will create an interactive network that will meet the need for curriculum-focused technology and sustained teacher training in schools. The collaborative, known as "The Education Connection" will use networked technologies , computer-based education materials, and audiovisual resources to create and disseminate new curriculum and train teachers. The curriculum will focus on core subject areas at each grade level, including mathematics, science, reading, writing, geography, social studies and fine arts. A total of 41 partners will contribute to the project.

Completing high school via the Internet
Pass Internet Program: Cyber High

Pass Internet Program: Cyber High, created by the **Fresno County School District** in California, is an innovative, cost-effective approach to completing high school graduation requirements via the Internet. Disadvantaged students can access their course work, participate in exciting learning activities, receive instantaneous feedback on test items and scores, and review progress toward graduation...all with the click of a mouse! During the first three years of the project, Cyber High staff will develop delivery systems via the Internet and expand the current curriculum to provide easy access to an enriched program of study. Web hyperlinks will allow students to experience cyber field trips to a myriad of places related to each course. The final two years will focus on dissemination activities, seeking new partners throughout the United States, Mexico and/or Canada, and involving private foundations, government agencies, and the corporate world.

Expanding educational opportunities for five rural school districts
Manson's Wireless Intranet System

The **Manson School District** is developing a wireless intranet system linking five school districts and communities across Washington State. The wireless system provides access to Cable TV, CD-ROM, videotapes, laserdiscs, satellite telecommunication, video conferencing, and the Internet. These technology tools augment the educational opportunities for students and allow school districts to share specialized teachers and staff developments. Expanding Educational Opportunities for Five Rural School Districts further expands the number of advanced offerings in core subjects to secondary students by creating Media Network Centers in each district that are capable of bringing education to the learner. Community connections are strengthened through a curriculum that initiates group process writing among elementary schools; initiatives that create and deliver instruction for migrant students; and programs that provide continuing education for staff and community members.

Creating advanced telecommunication networks to enrich education
Newaygo County Advanced Technology Service (NCATS)

The NCATS consortium has been established to develop and maintain an advanced fiber-optic cable telecommunications network that will enrich the education process. The network supports data, video, and voice communications capabilities that are available to all county residents. It connects all the county schools, the county seat, the hospital, libraries, private non-profit agencies, and area businesses. Video transmission of specialized courses and other educational support products will be delivered through a broadband CATV network. As the program grows, every teacher in the **Newaygo County Intermediate School District** in Michigan will be provided a personal classroom workstation, and there will be a minimum of four workstations in each classroom for student use.

Sharing educational resources via interactive networks
New Vision

New Vision is a consortium of school districts, postsecondary institutions, museums and private industries that demonstrates the dynamic ability of emerging technologies to expand and improve educational opportunities in rural, remote, poor school districts. Under the leadership of the **Towanda Area School District** in Pennsylvania, New Vision is establishing "distance learning centers" at 23 local education agencies, 6 post-secondary institutions, and the State Museum of Pennsylvania. These sites are being linked to a network of 40 schools and agencies committed to sharing local educational resources through interactive videoconferencing. Through its network, New Vision can offer high level classes that are not commonly offered due to low enrollment; use exemplary teachers to cover hard-to-fill positions in several districts at once; conduct unique student workshops; and offer advanced placement courses. The project is establishing one of the largest interactive networks in the country, involving over 54,000 students in Pennsylvania, New Jersey, and New York.

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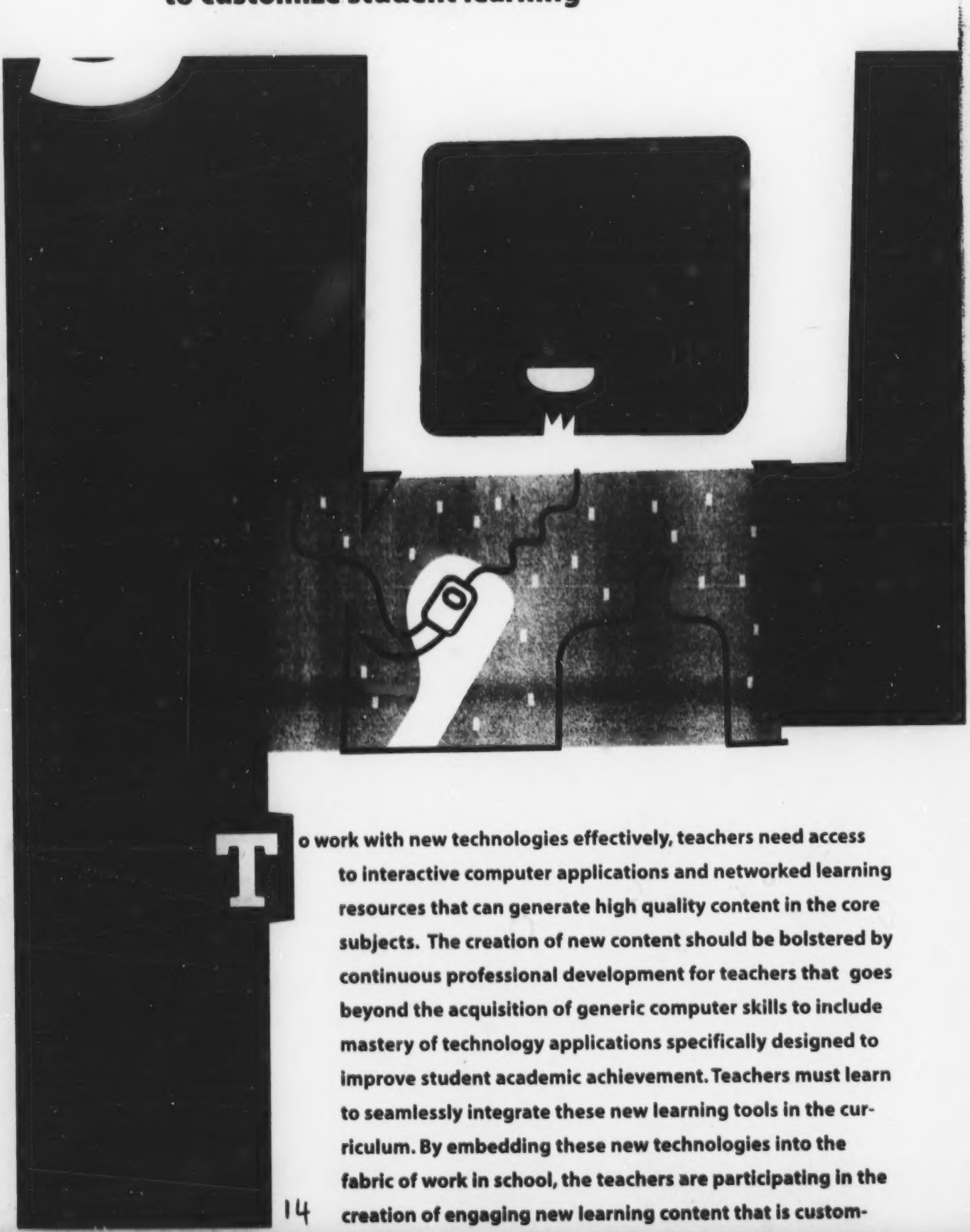
Empowering teachers with the technology skills to customize student learning



To work with new technologies effectively, teachers need access to interactive computer applications and networked learning resources that can generate high quality content in the core subjects. The creation of new content should be bolstered by continuous professional development for teachers that goes beyond the acquisition of generic computer skills to include mastery of technology applications specifically designed to improve student academic achievement. Teachers must learn to seamlessly integrate these new learning tools in the curriculum. By embedding these new technologies into the fabric of work in school, the teachers are participating in the creation of engaging new learning content that is custom-

Using students to train teachers in technology
Generation Why Project

The Generation Why Project, led by the **Olympia School District** in Washington state, focuses on today's new generation of youth as partners, and often as leaders, in bringing technology into the classroom. The District will be the lead agency for a national network of 14 school districts that will use this unique strategy in which students train teachers to integrate computers into the curriculum. The Olympia model, which has already been successful in the district's secondary schools, will be used to train a cadre of student and teacher technology leaders who will establish a World Wide Web site with guidelines for using new technologies to improve student learning. A total of 21 consortium partners—7 school districts, 2 institutions of higher education, and 12 corporations—will contribute to this project.

Transforming teaching and learning
New^3: New Technology, New Knowledge, New Work

New^3: New Technology, New Knowledge, New Work is a broad consortium of educational institutions, government agencies, private businesses, and philanthropic organizations dedicated to the goal of transforming teaching and learning in Ohio's **Summit County School District** by the year 2000. To meet this ambitious objective, the consortium has developed a program through which students use technology to complete substantive new work that meets high educational standards. New work is defined as work that engages, work with which children persist, and work that results in a sense of accomplishment. The consortium will also support a Technology Academy for teacher development where teachers learn about using technologies in the context of what children do, not what machines do. They also developed and implemented a Technology Work Experience Program for high school and college students. This program enhances school-to-work transitions by providing authentic technology-related experiences for participants.

Engaging all teachers in professional development
"Just in Time" Technology Training Project

Led by **Blackfoot School District #55**, a consortium of school districts, universities, and museums are directing a technology development and demonstration project for Idaho's teachers and students. The "Just in Time" Technology Training Project pilots a product-driven process to integrate technology into the teaching and learning of science and social science. The process will produce three sets of instructional multimedia materials targeted toward the elementary, middle and senior high school environments. Specifically, students and teachers will explore Idaho's history, multiculturalism, and science. Each of these components will address a wide range of subject disciplines and will enable students and teachers to find new and creative ways for integrating the material into original electronic reports and classroom presentations.

Promoting technology-based professional development
Greene County Technology Initiative

The Greene County Technology Initiative will assist educational institutions during the economic transition from an industrial/blue collar work force to a global and technology-literate work force that promotes entrepreneurial and technology-based enterprises. Under the direction of the **Greene County Vocational-Technical School** in partnership with five schools districts, a local college, and telecommunication firms, this initiative will employ interactive video conferencing technologies to distribute and share school-based and continuing education opportunities throughout the entire rural region. Networking computer technologies will be used to bring together students, workers, and citizens of the county with educational resources from around the world. A comprehensive professional development program will be initiated to support every school partnership. This project represents a significant commitment by the regional education institutions to transform the classroom, the workplace and the communities of Greene County in Pennsylvania.

Training teachers to teach with technology
Village Green Project

The Village Green Project, sponsored by the **School District of Greenville County** in South Carolina, provides a system of professional development and community involvement opportunities. Through the combined resources of the Greenville Technology and Learning Consortium, students, educators, parents, businesses and community members have forged a common commitment to provide access to technology. To reach Greenville County's learning goals and to address achievement gaps, the Village Green project proposes an innovative approach to professional development. Teachers are trained in computer technology and integrating the appropriate software applications into the curriculum; moreover, they become thoughtful users of technology to improve their own practice and enhance the lives of their students.

Improving teaching and learning via a district-wide Intranet
Richland Clicks!

Through Richland Clicks!, **Richland County School District One** in Columbia, South Carolina, proposes to develop a core curriculum database through a district-wide Intranet that will improve student success by giving teachers on-demand access to learning activities and technology-rich model lessons based on curriculum objectives. The project will develop interdisciplinary units in 6 lifelong learning areas (environment, economics, communications, health and safety and arts, entertainment, and culture). Community outreach and accessibility will be achieved through community computers, a mobile technology van, a portable training lab, and community service. On-going professional development featuring the use of peer training and tele-mentoring will be available to teachers. Some 54 district schools, 12 "impaired" districts, the Department of Juvenile Justice School District, and 20 private schools have joined forces with over 30 community partners.

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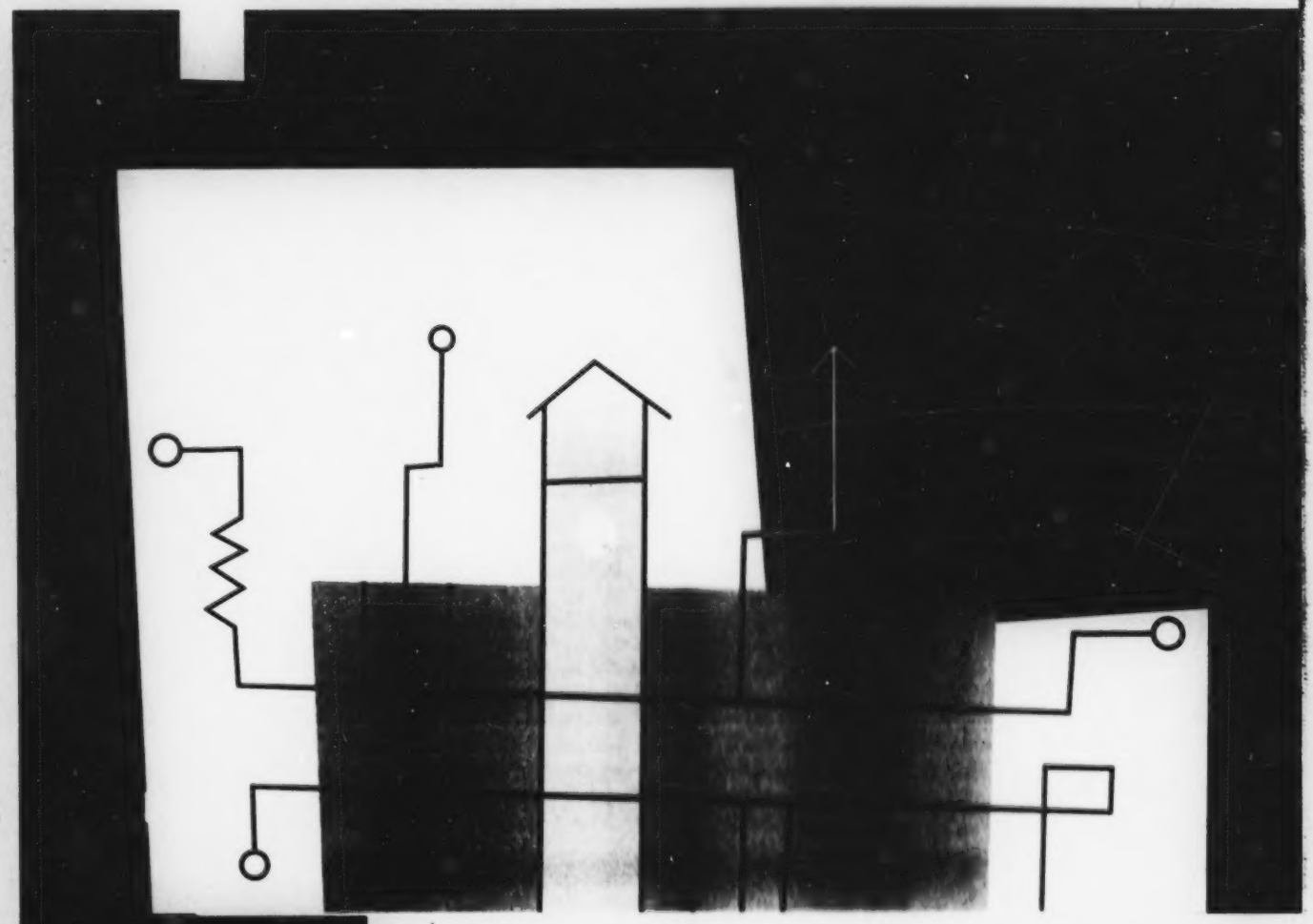
Integrating technology into curriculum reform



Computers and information technologies are transforming nearly every aspect of American life. This means that all students will have to achieve far more than they have in the past. They must be held to high standards that make clear what they should know and be able to do in the core academic subjects. These Technology Innovation Challenge Grants are working on integrating new technologies into state or district-wide curriculum reform efforts aimed at raising education standards.

Integrating technology into the curriculum
The Connections Project

The Connections Project will enable middle school and secondary school teachers in Seward, Nebraska, to create and implement integrated curricula supported by technology. The project will increase the capacity of educators to teach effectively through a curriculum reflecting Nebraska's Goals and Goals 2000. A cadre of 600 teachers will be trained to assist colleagues in effective use of technology to improve the achievement of high risk students in core academic subjects. Nebraska's extensive telecommunication networks, and established Internet hub sites, will be used to create a state-wide learning community of middle and secondary school teachers. A total of 30 consortium partners will contribute to this effort undertaken by the **Seward School District**.

Advancing school improvement with technology
ABC Technology in Education Partnership

Students in five **Guilford County Schools** in North Carolina will improve their skills in mathematics, science, social studies, and reading through the integration of technology into the curriculum. The project will use a new state-wide network to provide academic resources and teacher training across schools. Applications of technology and extensive teacher training, supported by a technology center, will reinforce efforts to meet state-wide goals for schools improvement. Seventeen consortium partners will participate in this activity.

Restructuring the curriculum to improve schools
American Gateways: Immigration and Migration in the United States

Community School District One on New York City's Lower East Side and Districts Four and Five in Harlem are establishing a consortium of teachers, staff developers, curriculum specialists, community leaders, software developers, and university faculty who will restructure the curriculum around the theme of immigration and migration in the United States. The American Gateways project will engage students in challenging study that meets national goals and New York's Curriculum Framework for school improvement. An electronic web, and a web of community members and resources, will be used to draw together ethnically diverse populations, reducing the separation of groups, and increasing the realizations that people are far more the same than different and that they are all working to reach similar goals. A total of 29 consortium partners will participate.

Creating student scientists—not just science students
Kansas Collaborative Research Network (KanCRN)

National and local standards emphasize "doing science" and "science for all Americans." The KanCRN is a local collaborative research model that uses technology to build on the fundamental teaching principles of these national and local standards. Developed by the **Kansas City, Kansas Public Schools** and the University of Kansas, this community is working together to create an instructional model that demonstrates that doing science is a better way of learning science. KanCRN is a community of researchers, teachers, and students interested in conducting collaborative research using web, Geographic Information Systems (GIS), and systems modeling technologies. This project seeks to expand upon ideas already under way in pilot stages. The technology tools developed include interactive databases, GIS servers and threaded discussion, and email messaging allowing students to propose, conduct, discuss, and publish research on-line. Significant interaction with community mentors involved in research is also a characteristic of this project.

Facilitating foreign language instruction through technology
Technology, Reform and National Education Standards Project

The Technology, Reform and National Education Standards Project, initiated by **Educational Service Unit #5** in Nebraska, uses foreign language instruction as the centerpiece of a comprehensive program of educational reform at the elementary and secondary levels in Nebraska and Iowa. Starting in first grade, students will begin to learn the Spanish language and culture using a communications-based approach. They will develop skills to communicate with native speakers of Spanish, and will learn to appreciate the culture of Spanish-speaking people. This will help prepare them for good paying jobs in an economy that is increasingly dependent on international commerce, especially with Latin America; improve their ability to function in a multicultural environment; and enable them to reap greater pleasure from foreign travel and communicating with native speakers. A variety of technologies will be used to facilitate student learning and to provide professional development, including distance learning and direct Internet connectivity utilizing multimedia computers. Partners in this project include five Area Education Agencies and Educational Service Units, six local school districts, two non-public schools, five institutions of higher education, and a wide range of technology and telecommunications providers.

Using technology to restructure schools
Technology in Education Challenge for Rural America (TEC-RAM)

The TEC-RAM consortium, established by the **Black Hills Special Services Cooperative** in South Dakota, has organized a state-wide, community-focused education program to advance the effective use of technology in restructuring schools by: 1) introducing innovative educational technologies in a state-wide redesign of K-12 curricula, instruction and assessment; and 2) capitalizing on new technologies to promote student Integrating instructional technologies into the curricula. Through the integration of technology into this process, a broad cross-section of community leaders will participate in the articulation of a shared education mission. Teams of teachers, curriculum specialists, technology specialists and private software developers identify and implement interdisciplinary projects and strategies that engage students as active learners involved in authentic, community-based learning experiences. TEC-RAM collaboration teams work directly in the classrooms to model, involve and support teachers in the process of integrating technology into effective standards-based curriculum and instruction.

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Integrating instructional technologies into the curriculum
The Manchester Challenge

The Manchester Challenge is a large-scale education reform effort that is integrating instructional technologies into the curriculum of elementary, middle and high schools in the **Manchester School District** in New Hampshire. The project is being implemented in collaboration with the Manchester municipal government, nearby school districts, colleges, businesses, industries, and technology vendors. Project technologies include instructional television, satellite broadcasts, multimedia telecomputing, and administrative applications. All participating educators are provided the equipment, training, time and on-going support to enable them to use information technology effectively. All schools throughout the district are being interconnected with a state-of-the-art network for voice, video, and data. Educators and students enhance the learning process with two-way video and audio distance learning classrooms, workstation in the classrooms, instructional television via cable, video production/reception, high speed telecomputing and a variety of other learning technologies.

Connecting a technology-based curriculum to academic standards
The Aurora Project

The Aurora Project brings together teachers from across the State of Oklahoma to create a technology-based curriculum tied to Oklahoma's Priority Academic Student Skills (PASS) standards. That curriculum—Geog Web—makes geography studies an extension of the lives of students and the communities in which they live. It uses technology to make cooperative learning a state-wide and even global experience and to build an evergrowing warehouse of knowledge resources and curriculum units. The project will be conducted by **Fairview Public Schools** on behalf of a consortium of six public school districts (Fairview, Enid, Frontier, Jenks, Pryor, and Hugo), the Catholic schools of Oklahoma City, Southwestern Oklahoma State University, in partnership with eight businesses and scientific research organizations.

Using technology tools to change mathematics' learning
The San Antonio Technology in Education Coalition (SATEC)

The SATEC seeks to connect student learning to concrete experiences through the seamless integration of technology into curriculum and instruction by developing an innovative training and application model. This model will be piloted in the Coalition's priority discipline of mathematics, through a hands-on, data-driven approach to the learning of algebraic concepts using such tools as computer-interfaced probes, image analysis software, and spreadsheet-based simulation activities. These technology tools will radically change the environment of the teaching and learning process for mathematics. The **San Antonio Independent School District** in Texas expects to infuse this systemic change of current teaching and learning practices through technology training into all curricular areas.

Linking science and technology
Technology in Nature in Sanger (TINS)

The TINS project, sponsored by the **Sanger Unified School District** in California, proposes a linkage between the Sanger Nature Area and technology. This linkage will provide "real-world, real-time" school-to-career education in the areas of science and technology beginning with a pilot of Del Roy, Lone Star, and Jackson Elementary Schools and the science departments at Washington Academic Middle School and Sanger High School in the first year of the grant. By the end of 4 years all Sanger Schools will be involved in the TINS project; the fifth year will offer access for students from surrounding districts. With the innovative use of technology, intensive professional development, classroom linkages via modems, sensors along trails, digital cameras, color printers and scanners, students can study a variety of scientific processes and record changes over time. A consortium of partners representing educational entities, private enterprise, and environmental special interest groups will provide assistance to this project.

Utilizing new telecommunication technologies to enact systemic reform
The Web Project

The Web Project, subtitled Creating a WEB of Evidence of Student Performance in Nonverbal Inquiry and Expression, is a consortium of state agencies, private industries, and educational institutions that are utilizing new technologies to enact systemic reform in school systems throughout Vermont. The project, established by the **Montpelier School District**, utilizes multimedia telecommunication as an educational environment for student inquiry and expression, as a medium for presenting and evaluating student work, and as a virtual faculty to foster professional discussions about standards of excellence in education. The focus of the WEB project is the arts, humanities, and the social sciences. In three pilot Vermont school districts, the WEB Project is demonstrating the connections between educational standards, curriculum, instruction and assessment. Each school district is provided five "computer suites" for use in central locations within schools. Students use these high performance computers to digitize text, graphics, and full motion video files for use by other students in a variety of learning activities.

Using multimedia to create culturally appropriate curriculum materials
Students as Agents of Change

Beginning in the middle schools, teachers and students will master common skills in multimedia development to create curriculum materials, and reports on African and African-American heritage that can be added to the traditional curriculum. Local fraternities, sororities, and community organizations will provide mentoring, and students will enhance their mastery by serving as cross-age tutors in the use of multimedia. The Gary Public Libraries will support extensions of the curriculum in after-school and community programs. Thirteen consortium members will participate in this project created by the **Gary Community School Corporation** in Indiana.

Blending an ocean-theme curriculum with technology

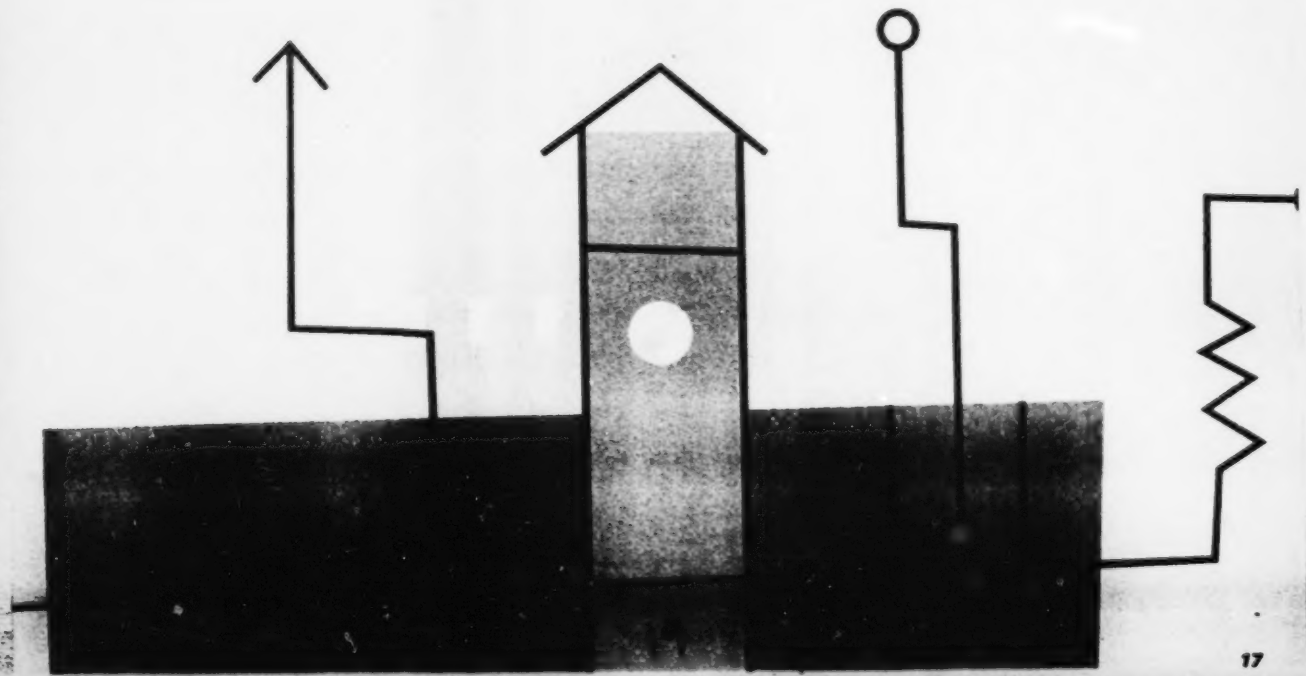
The Triton Project

The Triton Project is a multi-partner educational reform effort that blends a unique ocean-theme curriculum with several technologies to create new learning opportunities for students and teachers in the **San Diego Unified School District** in California. By using the capabilities and unique appeal of modern technology, the Triton Project engages students in interesting core curricula, provides a highly productive education program, and expands inquiry learning software with project-based science learning tools. By the year 2000, all of the district's students (more than 128,000) will be participating in the project. A strong staff development program and evaluation plan focuses on the development of a content-based and standards-driven curriculum.

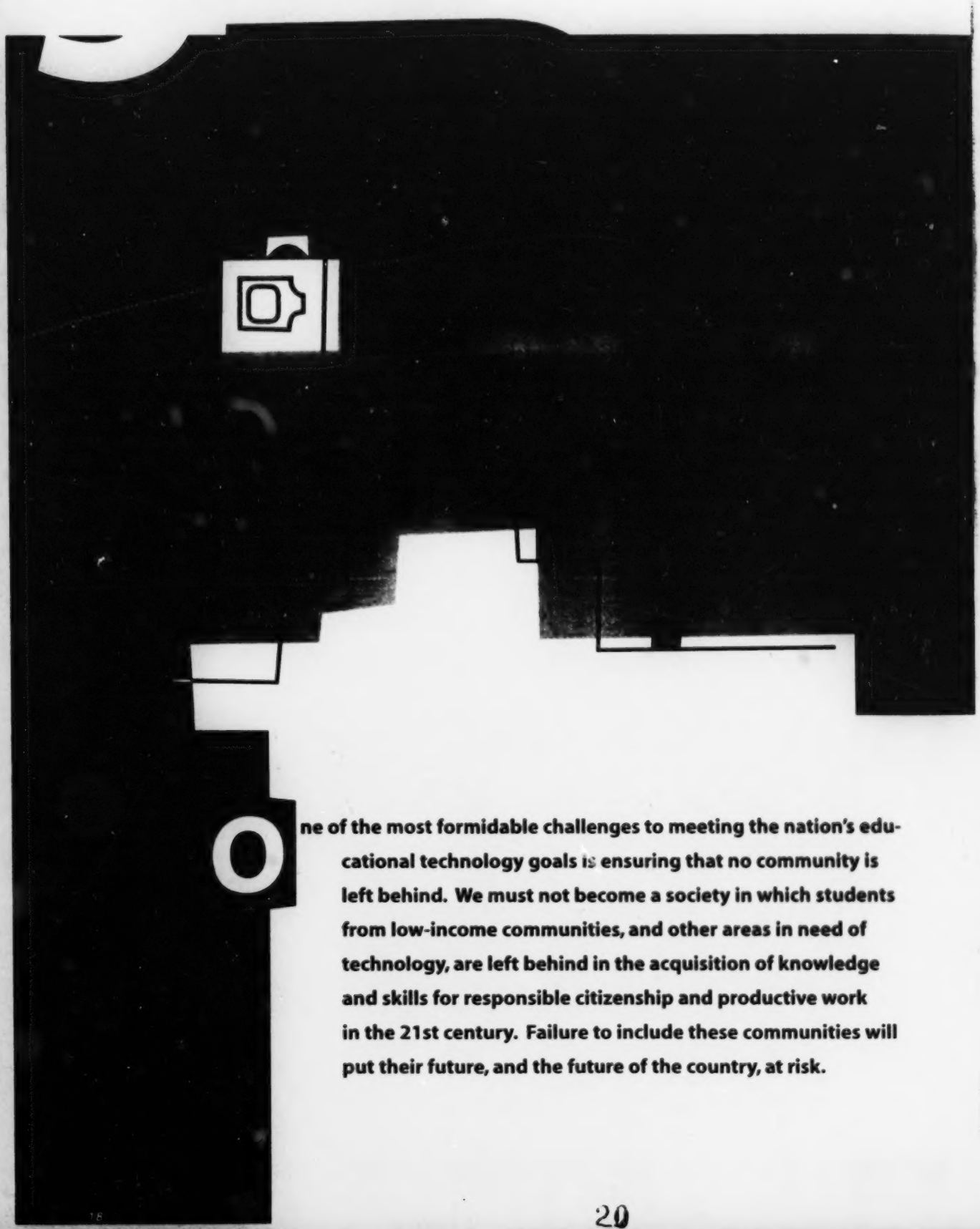
Linking learning to life with community resources

NatureShift!

NatureShift! is a student and Internet-centered, standards-aware and curricula-based project focused on the interaction between the natural world, human society, and history. Using virtual environments based on Web Adventures, Real World Adventures, and student-created Web projects, students and teachers at 12 demonstration sites will be immersed in authentic problem-solving situations, and linked with practicing experts at the Dakota Science Center and regional partners. Intensive training for teachers, students, parents, and community members will form the foundation for this project. Using new technologies, **Grand Forks Public School District One** in North Dakota will develop six major curricula (Weather Watch, Dakota Skies, Wounded Hawk, TeleRobotic Adventures, Grandparent's Attic, Ranger Rosie) that engage and educate learners. Collaborators include 5 school districts (3 on Indian Reservations), 2 libraries, 3 museums, University of North Dakota, state parks and game and fish wildlife organizations, and consulting scientists and business partners.



Utilizing technology to meet the needs of at-risk youth



One of the most formidable challenges to meeting the nation's educational technology goals is ensuring that no community is left behind. We must not become a society in which students from low-income communities, and other areas in need of technology, are left behind in the acquisition of knowledge and skills for responsible citizenship and productive work in the 21st century. Failure to include these communities will put their future, and the future of the country, at risk.

Raising the achievement of at-risk students and their families
The Electronic School

In collaboration with Tech Corps Hawaii, the **Hawaii State Department of Education** is developing a comprehensive program using innovative technologies to raise the achievement of at-risk students and their families. The program will provide students and families with access to these technologies at places and times that extend beyond the normal boundaries and schedules of the school. Traditional schools will be transformed into learning centers that use the Internet and other telecommunications to extend the time and place for learning. The curriculum content will be aligned with state and national performance standards, and it will incorporate "real world problem solving strategies" to facilitate the transition of students from school to work. Twenty-seven consortium members will contribute to this project.

Helping low-income children achieve world-class education standards
The Eiffel Project: New York City's Small Partnership Technology Challenge

A consortium, led by the Center for Collaborative Education (CCE) and the Institute for Learning Technologies (ILT) at Columbia University, is joining with the **New York City Board of Education** and several information and telecommunications firms to demonstrate how low-income children can achieve world-class education standards. The project will use digital libraries, desktop videoconferencing, collaborative problem solving with digital tools, and multimedia portfolios to link learning resources across schools. The project serves disadvantaged students in areas including the Upper Manhattan Empowerment Zone and several communities in the Bronx, Queens, and Brooklyn. Twenty-one consortium partners and 47 schools will contribute to this effort.

Combining innovative technologies to raise achievement of at-risk students
Anderson Community Technology Now! Project

Anderson Community Technology Now! Project is a consortium of local and state agencies in Indiana that is combining innovative technology initiatives to raise the academic achievement of **Anderson Community School Corporation's** underchallenged and at-risk students and their families. The program is designed to accelerate the pace of educational improvement and ensure greater economic opportunity within the community. The project's activities include computer instruction in word processing and productivity software, and integration of technology applications into language arts, math, science, and social studies classes. Emphasis is on changing teaching styles, using the home computer for collaborative writing and reading projects, and using telecommunications to strengthen the connection between home and school to increase family involvement in learning.

Improving the education of at-risk youth
VISIONS TECWEB

VISIONS TECWEB addresses the needs of nearly 3,000 disadvantaged and special needs Native American youth in a tri-state region. TECWEB, or Technology Education Challenge—World's Expanding Boundaries, directs a student-involved, teacher-controlled, community-based model which uses traditional Lakota values as guiding principles for infusing technology with the curricula. A diverse consortium led by the **Todd County School District 66-1** in South Dakota, TECWEB is dedicated to creating modern communication centers of learning for Lakota and Dakota (Indian) students. The consortium provides the requisite leadership to encourage the pursuit of higher lifetime achievement by linking academically prepared youth with new and relevant Information Age economic opportunities.

Helping students with special needs
Teacher LED Technology Challenge

The Berkeley Technology Transformation Demonstration will use new multimedia technologies to support challenging curriculum standards in all pre-school, elementary, and middle school classrooms. A carefully staged 5 year implementation strategy led by the **Berkeley Unified School District** in California will train classroom teachers to provide leadership for technology-based learning in each school. Family involvement will be promoted through the "Technokids" computer lending program that gets computers into the homes of underachieving students. Technology will be integrated through the core curriculum. Teachers will be trained to adapt these technologies to each student's learning needs, including those with severe learning disabilities. Twenty-five consortium members will contribute to this effort.

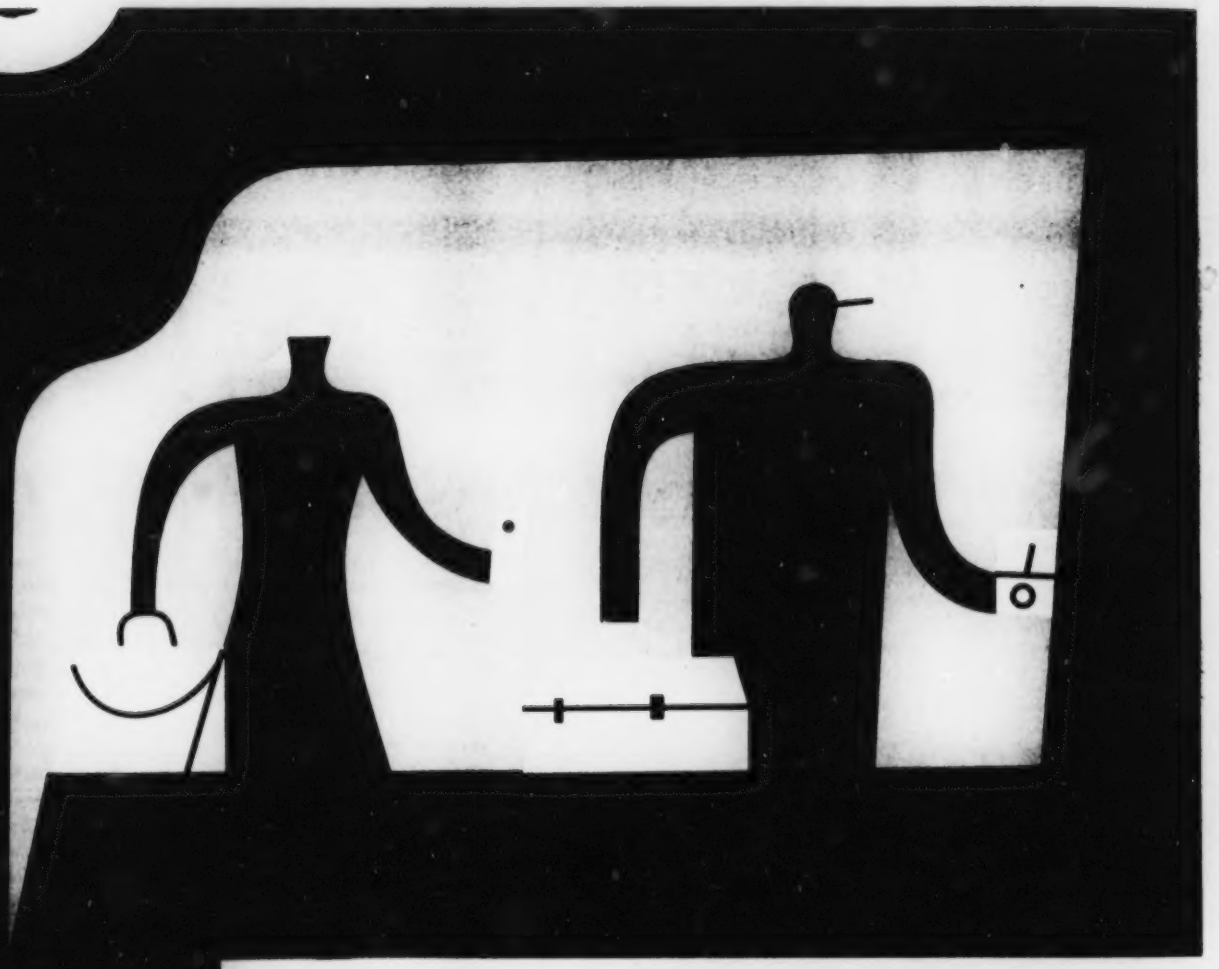
Improving education for inner-city youth
MetroLINC

The MetroLINC project, created by the **Boston Public Schools** in Massachusetts, will equip, staff, train, and support 104 elementary and middle schools to implement standards-based education using technology as a primary tool for teaching and learning. A rapid dissemination program, MetroLINC will create 12 technology demonstration community learning centers—9 in Boston and 3 in nearby Watertown. Teams from 92 schools will use the demonstration sites as a model and training source. MetroLINC schools have five key elements: 1) state-of-the-art equipment and infrastructure linking sites as a single learning system; 2) extended hour access through public libraries and community centers; 3) training and technical support to use technology as a tool for teaching and learning and assessing progress toward clearly defined academic achievement goals; 4) college-school programs to merge full pre-service training with regular school operations; and 5) a curriculum Web site/relational data base to support standards-based education. The project expects to serve 33,826 predominantly inner-city students.

Meeting the needs of students in Indian schools
Four Directions

Four Directions, created by **Pueblo of Laguna Department of Education** in New Mexico, blends American Indian culture with new educational technologies to revitalize curricula and instruction in Bureau of Indian Affairs (BIA) schools. Eight schools representing tribal groups in eight states have been selected as pilot sites for the project. Team members consisting of students, parents, teachers and community members develop authentic learning tasks drawn from the unique cultural context of each tribe. The tasks are then developed into "thematic cycles" which draw on the central components of core curricula. World Wide Web pages allow the tribes to share unique aspects of each American Indian group from the perspective of its own people. This provides students with a focal point for problem solving and for sharing important tribal cultural contributions. Project technologies are used by students to perform research on thematic issues, develop learning activities on the themes, explore other disciplines that are part of the theme cycles, and provide access to their results for authentic assessment.

Preparing students for the workforce of the future



Most of the nation's students begin their careers directly after high school. Technology Innovation Challenge Grants utilize new technologies to help these students improve the transition from school to work. In a networked economy employers must have well-educated employees who make skillful use of information technologies to increase their knowledge and improve their productivity. By embedding these new learning tools in the day-to-day work of the classroom, they will help students to develop the skills they need for successful careers in the 21st century.

Preparing students for a rapidly changing workplace
The Corning Community Project for Learning and Teaching

The **Corning City School District** in Painted Post, New York, will work with local partners including the Corning Museum of Glass and Corning Inc., to address two challenges: how to prepare students to meet the demands of a rapidly changing workplace, and how to address the issue of fairness and equity in a community characterized by social and economic extremes. Beginning with the two middle schools, students and faculty will be provided with an interactive local computer network and Internet access. Additionally, computers and access to the school network from the home will be provided for economically disadvantaged students. The introduction of computers into the curriculum is as integral part of the Corning School District's 5-year Strategic Action Plan. A total of 19 consortium members will participate.

Expanding career education through Technology Opportunity Centers
Your Future in WV Growing Together

Monongalia County Board of Education in Morgantown, West Virginia, has undertaken a career-oriented project with the schools, eight additional county school districts, the State Department of Education, the West Virginia High Technology Consortium Foundation and 10 local businesses. The project will work with 152 schools in the State to increase the use of computers in the classroom, expand career education curriculum opportunities, and increase parent and community involvement through Technology Opportunity Centers. At the Opportunity Center students, parents, and displaced workers will have access to computers for job searches and career development. The Foundation is creating a $12 million center to support this program, with 80 percent funded by private sources. A total of 13 consortium partners will participate in this effort.

Educating students for today's workforce
Accepting the Challenge

As part of a comprehensive school reform initiative, the **Franklin County Public Schools** in Rocky Mount, Virginia, will integrate computers and appropriate information technology into the curriculum at all grade levels. To meet the demands of today's workforce, the County's young people must be able to use new technologies to solve problems, think critically, and develop strong academic skills. The school system is designing an innovative program that prepares students to pursue a variety of career paths that build on strong academic and computer skills. The Center for Applied Technology and Career Exploration will provide teacher training and staff support for the program. A total of 14 consortium partners will participate.

Challenging schools and industry to meet future work needs
The Reality Based Learning Project

The Reality Based Learning Project is designed to create a network of nine Illinois schools in which teachers and students use their knowledge and skills to serve as consultants, addressing "real world problems," generated through an active collaboration with business, government, community organizations, and higher education. The problems will be initiated, and research carried out and reported by teams of students and industry personnel working together in extended relationships that are part mentorship, part collaboration, but entirely productive for both schools and industry. These relationships will be supported by new types of interactive computer and communications technologies, including the Internet. The **Kirby School District #140** in Tinley Park, Illinois, is working with 21 consortium members to implement this project.

Connecting schools to the home, work, and community
The Baltimore Learning Community Project

The Baltimore Learning Community Project is a multi-faceted education program that utilizes distance learning, interactive cable TV and the Internet to connect schools to homes, places of work, and the community at large. This program, created by the **Baltimore City Public Schools** in Maryland, provides extensive training for teachers, directly involves parents in the education process, and extends a wide range of new educational opportunities to over 38,000 students at the middle and high school levels. School-based activities focus on mathematics, social studies, science, communication and the arts. Connections to the community are fostered through workplace and school partnerships. Through two-way interactive video connections and digital networks, work supervisors at retail stores, restaurants and other places of business interact with school professional staff to learn how to transform work experiences into learning experiences.

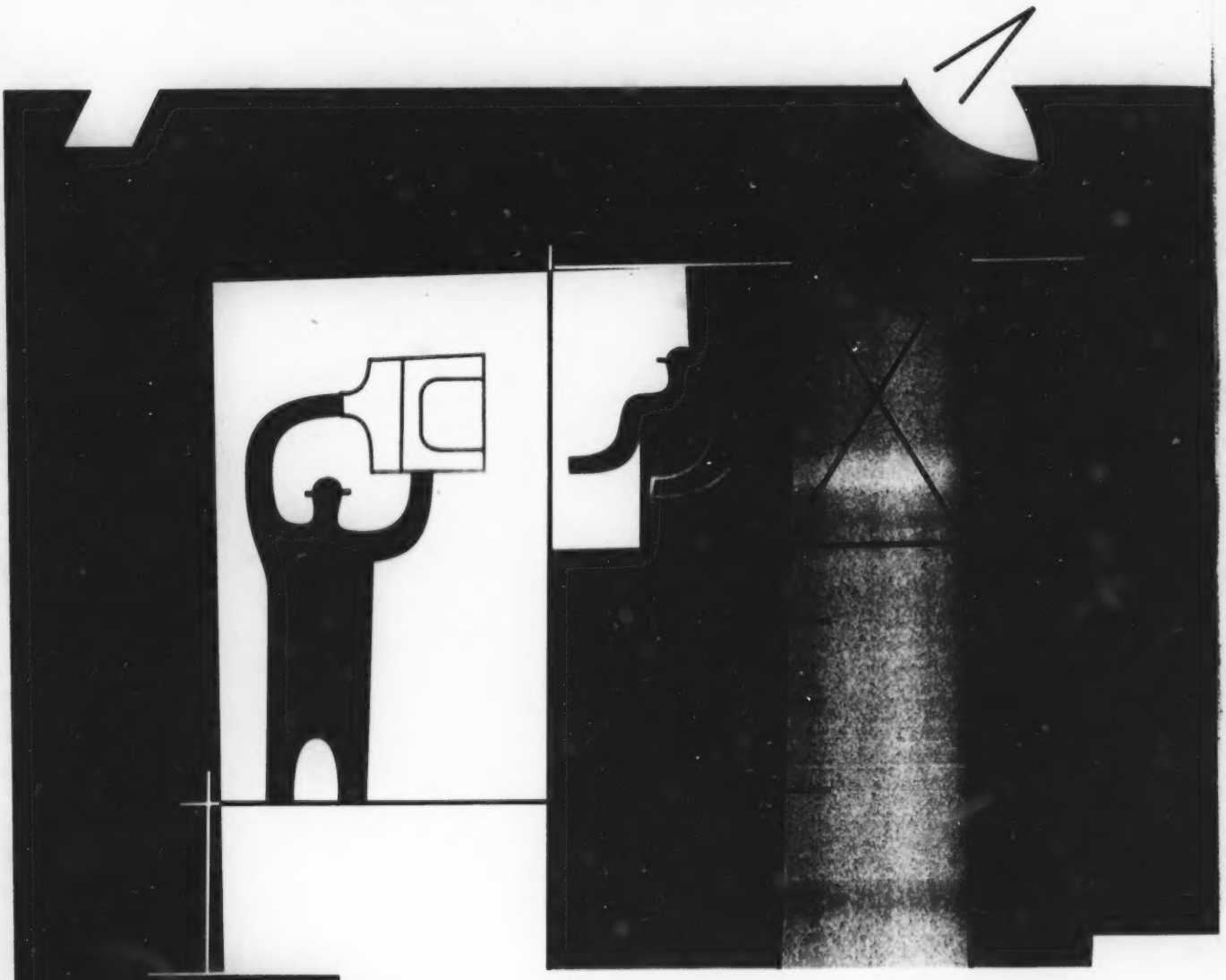
Helping students create their futures
Education for a Sustainable Future

The Education for a Sustainable Future Project, managed by the **Cobb County School District** in Georgia, will develop technology-rich, inquiry-based K-12 learning materials to address sustainable development topics. Sustainable development education investigates critical environment and educational issues that help students understand their future and create models for preferable futures. The study of sustainable development is conducted with technology-based tools that assist planning, modeling, and decision-making. Technology also provides the collaboration tools to bring international expertise to the schools to support teachers as they develop and implement materials. With the guidance of world class experts and a national consortium, teachers in 9 Georgia schools will develop and test student-generated investigations and projects, and associated software tools. The material will be revised and disseminated throughout 8 Southern districts through workshops and netcourses for 400 teachers and placed on the Web.

Linking information-technology to employment
New Spectrum Learning Program

The **Los Angeles Unified School District (LAUSD)** and Workforce LA, in collaboration with DreamWorks SKG, the Alliance of Motion Picture and Television Producers, Claremont Graduate School, the California Department of Education, and a consortium of schools and entertainment-related multimedia companies, are establishing the New Spectrum Learning Program. These partners will guide 600 K-12 teachers and 20,000 inner-city students across this new and vibrant spectrum of technological change and innovation. Through this program, teachers and students will master the use of multimedia to create new learning content, and they will be able to see and experience an "infostructure" that enhances their ability to meet the new century's challenges.

Building new learning communities



Technology Innovation Challenge Grants support consortia of educators and parents, industry partners, community leaders and others who are collaboratively developing new applications of technology to transform their factory era schools into information age learning centers. Some of the most exciting possibilities are flowing from the creative synthesis of ideas generated by teachers and students, who are partnering with software developers and cognitive researchers in consortia that include telecommunication firms and hardware manufacturers, entertainment producers, and others who are stretching our thinking about how to create new learning communities.

Working with museums and others to improve student learning

The Primary Sources Network

Melvindale-Northern Allen Park Public Schools in Michigan are working in partnership with 14 school districts, Michigan State University, and the Henry Ford Museum to use the World Wide Web and distance learning over the Internet to improve student learning. Students and teachers will have access to primary sources of scientific and technological innovation, with an emphasis on the historical and cultural forces that affect creativity and change. An electronic journal on the Internet will document student and teacher performance, and it will contribute to continuous quality improvement throughout the project. Nine consortium partners will contribute to this work.

Partnering with non-school based groups to improve learning

The Trails Project

Teachers and students representing schools along the Oregon and Santa Fe Trails will work in partnership with universities, museums, historical groups, and interested citizens to learn about the history of these trails that played a crucial role in western settlement and they will communicate, through technology, what they discover. Students will conduct on-site and on-line research with original historical documents to study the effect of westward expansion on the environment. Students and teachers in schools along the trails will examine how communities and cultures along the trails developed and changed over time, and they will exchange their knowledge with each other through CDs, videos, and the Internet. A total of 36 consortium partners will participate in this **Kansas City, Missouri School District** project.

Collaborating with libraries to develop new curricula and on-line lessons

Project Whistle-stop

Project Whistle-stop will enable educators to work with the Harry S. Truman Library to put original resource documents on-line. Teachers will develop new curricula and on-line instructional lessons. Students will use these resources to create on-line research portfolios. For example, a team of Independence High School students with an interest in the decision to drop the atomic bomb on Hiroshima would use interactive software to tour the Truman Library and access original source documents. They could review project folios of work done by students from across the state in previous years, and search for historians willing to mentor students with this research. Eleven consortium partners will contribute to this work conducted by the **Independence, Missouri School District**.

Capitalizing on local resources to improve learning

State of Utah Resource Web (SURWEB)

The SURWEB is a telecommunication project providing educational opportunities for Utah students who live in poor, rural, or culturally disenfranchised communities. The program was created by a consortium, including Utah's **Southeast Education Service Center**, institutions of higher learning, WestEd, museums, state parks, national parks, and Native American tribal cultures and agencies. Using state and national school reform goals as a guide, the Curriculum Advisory Committee develops thematic instructional units which integrate subject matter disciplines, introduce real-life issues, and capitalize on local and state resources. This educational material is made available to Utah schools and schools throughout the country via SURWEB and other state networks connected to the Internet. SURWEB is developing and piloting a teacher training program called Utah Internet Institutes that provides instruction in utilizing the resources of the Internet. The Institutes train teachers to access resources via telecommunication, integrate resources into teaching and learning, and evaluate student projects completed over the Internet.

Bringing museums to classrooms

The Community Discovered: Integrating Art and Technology in K-12 Education

The Community Discovered program is a multi-element education program that uses technology to bring art museums and other educational resources to K-12 classrooms in Nebraska and 10 other states. The program, led by **Westside Community Schools**, is stimulating cross-state partnerships with the goal of replicating project activities throughout the country. The program's main goal is to strengthen a nation-wide community of educators engaged in creating integrated art focused curricula in all core subject areas. The Smithsonian Institution, the Getty Museum, the Joslyn Museum, the Sheldon Museum, and the Museum of Nebraska Art are making more than 750 art images available to schools through the Internet, along with curriculum and contextual information for use by educators and students. Museum educators are providing educational outreach programs that use technologies such as the Internet, kiosks, and interactive multimedia.

Creating a true learning community

Extending Learning through Community and Family

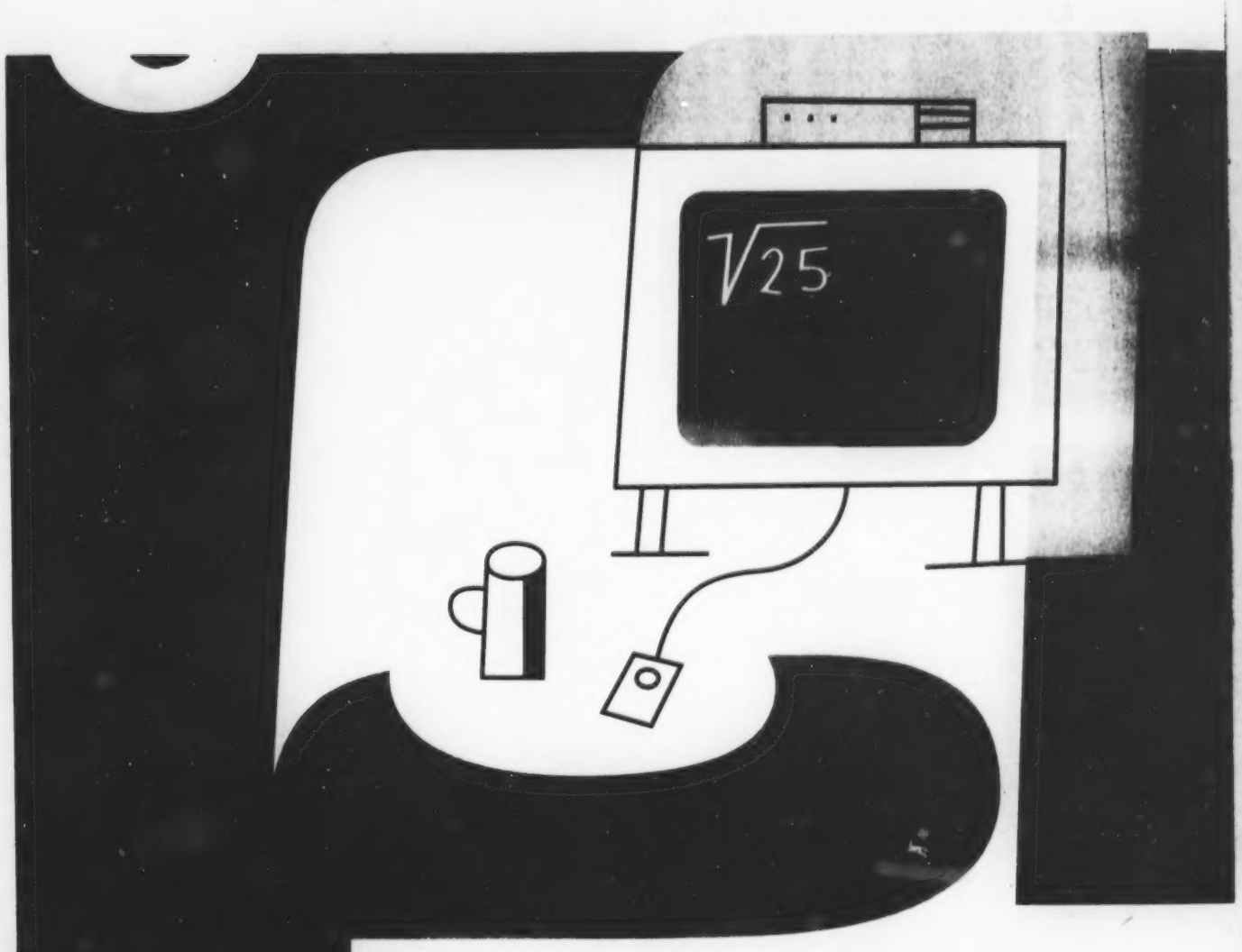
Extending Learning through Community and Family is an initiative of **Sumter School District Two** in South Carolina. Sumter is striving to bridge the gap between technology "haves" and those that have been traditionally left out of the technological fold due to economics, lack of knowledge, or lack of access. A diverse consortium of business, industry, local government, community agencies, state government, citizens, parents, and school districts are collaborating to create a true learning community. By embedding new technology into the fabric of school, work, and community activities, Sumter's innovative community will connect to each other and the world in an interactive, institutionalized, and on-going learning structure designed to improve the quality of life for all citizens.

Integrating the learning environment with the community

Learning Community 2000

Learning Community 2000 addresses the need to recreate civics education to promote informed and responsible participation in a democracy changed by emerging information technologies. It will develop a model of schooling that uses newly defined roles for teachers, parents, and community elements to empower students in an authentic, active learning process. The new student role includes learners of all ages who employ communication technology, learn new methods of collaboration, and practice the skills needed to obtain, evaluate, and utilize information. The result will be an exportable model of an on-line learning community. The model is expected to be adapted for use in all subject areas. Fifteen consortium partners will contribute to this effort initiated by **Pekin Public School District #108** in Illinois.

Reconnecting classrooms to the home



Technology offers new and exciting ways for families to increase their involvement in their children's education. When families and teachers are in effective communication, students stand a greater chance of success. If parents learn how to use technology effectively, they can bring a vast array of education resources to the home. Parents can extend the time and place for learning from the classroom to the living room, creating new opportunities for sustained study in core disciplines. With similar applications of technology, educators can forge new alliances with business leaders and local agencies that improve education by extending learning into the community.

Offering students and parents educational technology opportunities

The Seattle Community of Learners System

The **Seattle School District** in Washington is developing a comprehensive approach to school improvement by creating new learning environments in which students, parents, and educators will be connected to workplaces through electronic information systems. Teachers will receive instruction and certification in educational technology and the schools will produce a better educated technology workforce. New technology classes will be provided for large numbers of low income public housing residents. The district will also develop a new 11th and 12th grade "Information Technology Career Pathway" in cooperation with Microsoft Corporation, which will prepare students for Microsoft certification and future employment in technology careers. A total of 14 consortium partners will contribute to this work.

Bridging schools and homes

Teaching and Learning with Technology

In the **Lawrence Public Schools**, high performance technologies will be used to provide teachers with new tools to engage students as active learners capable of mastering challenging academic subject matter. New technologies and telecommunication networks will be used to strengthen the link between school and home by providing parents with skills to support student achievement. By eliminating the barriers imposed by the traditional school schedule, these technologies will greatly extend the places and times that children learn. The project will use the next generation of Internet hardware for in-home applications of educational software directly correlated to the school curriculum and Massachusetts Instructional Standards. Eight consortium members will contribute to this project.

Reaching beyond the traditional classroom

Technology and Learning Collaborative (TLC)

The TLC is a consortium of educational institutions, private businesses, and government agencies that has developed a multi-faceted program to modernize and improve the educational process in the **Waukegan Public Schools** in Illinois. The TLC consortium is implementing a community-wide math and science education program based on innovative uses of new technologies and project-based learning activities. The consortium is establishing model classrooms to be duplicated throughout the Waukegan schools. Each classroom contains a teacher workstation with multimedia capability; an overhead TV monitor; five student workstations with multimedia capabilities; a laptop; a printer; a compact video camera; a color scanner; a digital camera; and an Internet connection. To reach beyond the traditional classroom walls, Technology and Learning Community Centers were established at four easily accessible locations around the community. These centers provide students, parents, and other adults access to a wide range of educational technologies and information.

Providing educational opportunities for the entire community

Goals 2000

The **Natchitoches Parish School Board** in Louisiana is developing comprehensive programs that use telecommunication to increase participation in high-tech learning by underserved K-12 students in five Louisiana school districts. The consortium will ultimately increase communication among all community stakeholders by using learning technologies to provide educational opportunities for students and parents at more convenient times and more accessible places. Five pilot sites are developing, implementing, and evaluating a comprehensive district plan for using educational technology to increase student achievement and to meet local educational goals. Each district is increasing access to educational opportunities by opening school sites after hours and by expanding access to places more often visited by community members.

Building a community of learners

A Community of 21st Century Learners for El Paso

A Community of 21st Century Learners for El Paso is an ambitious program created by the **Socorro Independent School District** to rejuvenate the schools in El Paso, Texas. The program goals are to produce within 5 years: 1) 10 restructured partner schools and a teacher preparation institution, fully connected to the Internet and its resources; 2) 120 teachers who integrate acquired technologies and national standards into the curriculum, and who serve as teacher trainers at 70 other schools; 3) 10,000 students from impoverished neighborhoods who bridge the academic performance gap in state and national standardized tests; 4) 1,000 Hispanic parents utilizing laptop computers in a program to provide technology knowledge and skills; 5) 100 business partners serving as mentors for 200 disadvantaged elementary and high school students; and 6) A Community of Learners development change model with emphasis on access to technology to be exported to the 55 schools that are members of the El Paso Collaborative for Academic Excellence.

Providing student and family access to on-line resources

Philadelphia's Technology Challenge Grant Consortium

The Philadelphia Consortium, created by the **Philadelphia School District** in Pennsylvania, has developed a comprehensive program to invigorate K-12 and adult education programs through the imaginative use of educational technologies. The project utilizes many of the latest developments in telecommunication, multimedia, and computer instruction to build a new teaching and learning process within small learning communities. The resulting "Virtual Schools" represent a fundamental and radical transformation of teaching to emphasize interaction and inquiry in the learning process. This initiative builds an electronic communications system that enables citizens to enjoy easy access to the administrative and instructional staff of the school district, and other local, national and on-line resources. There are two major components to the program's on-line resources: The Teaching and Learning Network (TLN) and the Family Resources Network (FRN). The TLN is a key link to an effective practices database which includes information on local and national curriculum resources, sample lesson plans, information on standards and assessment, discussion group opportunities related to teaching and learning issues, cross reference lists of all teaching and learning resources on the Internet, and on-line homework assistance. The FRN assists schools in identifying and providing health, mental health, and social services to students and families.

Extending learning opportunities to any time and place

Project LemonLINK

The **Lemon Grove School District** in California will connect all district students and their parents to the classroom at home through development of a District Internet/Intranet system. Project LemonLINK infuses technology into classroom instruction and extends learning opportunities to any time and place within the community. Every child will be able to access schoolwork from a variety of workstations throughout the community and through computer access for each student at home. For those who have no home computer, TV set top boxes, a keyboard
and a mouse converting TV sets into home computers will be available. Unique web-based instructional guides, called Lemon Aids, broaden the scope of education and motivate learners of all ages in a variety of settings.

Bringing classroom activities into the home

Delaware Interactive Educational Television Consortium

The **Capital School District** and the State of Delaware have formed an Interactive Educational Television Consortium that is bringing unique and engaging classroom learning activities directly into the homes of schoolchildren throughout the state. Through the use of small computers ("set tops") that connect home televisions equipped with cable or phone modems, the consortium can provide programming that is interactive, entertaining, educational, and tailored to meet both the state curriculum requirements and the individual needs of students. The program is being piloted in five elementary schools with high percentages of disadvantaged students and can easily be replicated in schools across the country.

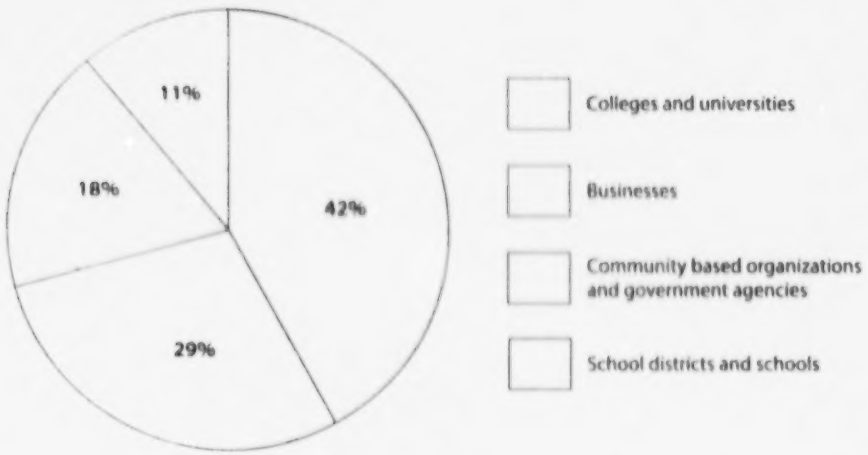
Map of 62 Technology Innovation Challenge Grants

Location of school districts receiving Challenge Grants

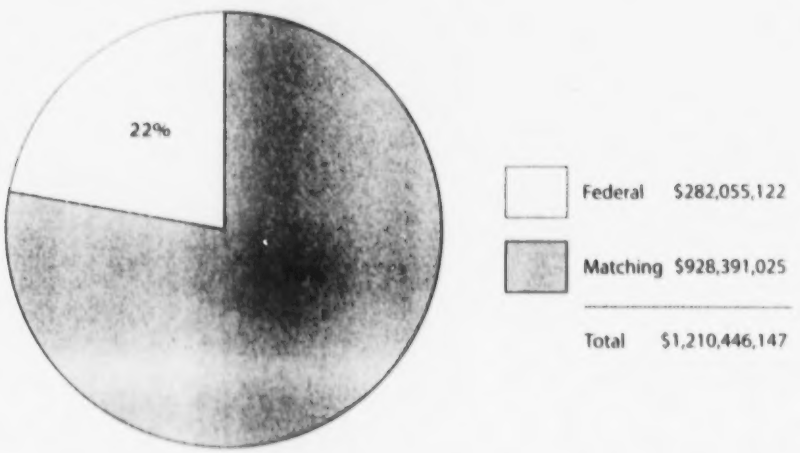
Map of 62 Technology Innovation Challenge Grants

Partners and Matching Commitments

Partners for 62 Challenge Grants



Matching commitments



Directory

of Technology Innovation Challenge Grants

Anderson Community School Corporation
Anderson Community Technology NOW! Project (pg. 19)
30 West 11 th Street
Anderson, Indiana 46016
(317) 641-2151
http://www.acsc.net/~actnow/

Baltimore City Public Schools
Baltimore Learning Community (pg. 21)
2500 East Northern Parkway
Baltimore, Maryland 21214
(410) 396-7607
http://www.learn.umd.edu

Berkeley Unified School District
Teacher LED Technology Challenge (pg. 19)
1835 Alliston Way
Berkeley, California 94703
(510) 644-6490

Black Hills Special Services Cooperative
Technology In Education Challenge for Rural America (TEC-RAM) (pg. 15)
1925 Plaza Blvd.
Rapid City, South Dakota 57702
(605) 394-1876
http://www.tie.net

Blackfoot School District #55
"Just In Time" Technology Training Project (pg. 13)
270 E. Bridge
Blackfoot, Idaho 83221
(208) 782-9548
http://aristotle.isu.edu/Just_in_Time/Just_in_Time.html

Boston Public Schools
Office of Instructional Technology
MetroLINC (pg. 19)
55 New Dudley
Boston, Massachusetts 02120
(617) 635-8880

Capital School District
Delaware Interactive Educational (pg. 26)
Television Consortium
945 Forest Street
Dover, Delaware 19904
(302) 672-1521
http://www.challenge.k12.de.us/

Chicago Public Schools
The Chicago Neighborhood Learning Network (pg. 9)
1819 W. Pershing Rd.
Chicago, Illinois 60609
(773) 535-8921

Cobb County School District
Education for a Sustainable Future (pg. 21)
514 Glover Street
Marietta, Georgia 30060
(770) 514-3863

Community School District One
American Gateways: Immigration and Migration in the United States (pg. 15)
80 Montgomery Street
New York, New York 10002
(212) 602-9730

Corning City School District One
The Corning Community Project for Learning and Teaching (pg. 21)
165 Charles Street, Room 202
Painted Post, New York 14870
(607) 936-3704

Educational Service Unit #5
Technology, Reform, and National Education Standards (pg. 15)
900 West Court
Beatrice, Nebraska 68310-3526
(402) 597-4832

Fairview Public Schools
The Aurora Project (pg. 16)
100 East Elm
Fairview, Oklahoma 73737
(405) 227-2555

Franklin County Public Schools
Accepting The Challenge (pg. 21)
25 Bernard Road
Rocky Mount, Virginia 24151
(540) 483-5138
http://www.freo.k12.va.us

Fresno County School District
Pass Internet Program: Cyber High (pg. 11)
1111 Van Ness
Fresno, California 93720
(209) 488-7545

Gary Community School Corporation
Students as Agents of Change (pg. 16)
620 E. 10th Place
Gary, Indiana 46402
(219) 881-5508
http://www.surfnetinc.com/gary schools/chalgrt.htm

Grand Forks Public School District One
NatureShift! (pg. 17)
P.O. Box 5023
Grand Forks, North Dakota 58206
(701) 795-8500
http://www.grand-forks.k12.nd.us/~naturesh/intro.html

Greene County Vocational-Technical School
Carmichaels Area School District
Greene County Technology Initiative (pg. 13)
Carmichaels, Pennsylvania 15320
(412) 966-5045
http://www.waynesburg.edu/GCTC/GCTC.htm

Greenville County School District
Village Green Project (pg. 13)
301 Camperdown Way, Box 2848
Greenville, South Carolina 29602
(864) 241-3204

Guilford County Schools
ABC Technology in Education Partnership (pg. 15)
425 Prescott Street
Greensboro, North Carolina 27401
(336) 370-8009
http://www.abcnet.org

Hawaii State Department of Education
The Electronic School (pg. 19)
1390 Miller Street
Honolulu, Hawaii 96813
(808) 586-3307
http://www.eschool.k12.hi.us

Hudson Public Schools
The Virtual High School Collaborative (pg. 9)
37 Thoreau Street
Concord, Massachusetts 01742
(508) 371-3489
http://concord.org/proj-vhs.html

Independence, Missouri School District
Project Whistle-stop (pg. 23)
210 Truman Road
Independence, Missouri 64055
(816) 252-6436
http://www.whistlestop.org

Indianapolis Public Schools
A Learning Cooperative (pg. 9)
801 N. Carrollton Avenue
Indianapolis, Indiana 46202
(317) 226-4152
http://www.ips.k12.in.us/instmed/challenge.htm

Kansas City, Missouri School District
The Trails Project (pg. 23)
306 East 12th Street, Suite 700
Kansas City, Missouri 64106
(816) 418-7146
http://trails.kcmsd.k12.mo.us

Kansas City Public Schools
Kansas Collaborative Research Network (pg. 15)
625 Minnesota Avenue
Kansas City, Kansas 66101
(913) 279-2211
http://www.kancrn.org/

Kirby School District #140
The Reality Based Learning Project (pg. 21)
16931 South Grissom Drive
Tinley Park, Illinois 60477
(708) 532-6462

Lawrence Public Schools
Teaching and Learning with Technology (p. 25)
255 Essex Street
Lawrence, Massachusetts 01841
(508) 975-5905

Lemon Grove School District
Project LemonLINK (pg. 26)
8025 Lincoln Street
Lemon Grove, California 91945
(619) 589-5730
http://www.lgsd.k12.ca.us/lemonlink

Los Angeles Unified School District
New Spectrum Learning Program (pg. 21)
2445 Daly Street, Room B002
Los Angeles, California 90031
(213) 224-6191

Manchester School District
The Manchester Challenge (pg. 16)
196 Bridge Street
Manchester, New Hampshire 03104
(603) 624-6300

Manson School District
Manson's Wireless Intranet System (pg. 11)
P.O. Box A
Manson, Washington 98831
(509) 687-3140
http://www.cc5.org

Melvindale-Northern Allen Park Public Schools
The Primary Sources Network (pg. 23)
P.O. Box 1970
Dearborn, Michigan 48121
(313) 271-1620
http://primarysources.msu.edu

Metropolitan Nashville Public Schools
Schools for Thought (pg. 9)
2301 Tenth Avenue South
Nashville, Tennessee 37204
(615) 298-8432
http://www.nashville-schools.davidson.k12.tn.us/Programs%20folder/Tech_Innov_Challenge.html

Monongalia County Board of Education
Your Future in WV Growing Together (pg. 21)
1000 Technology Drive, Suite 1000
Fairmont, West Virginia 26554
(304) 366-2577
http://www.wvhtf.org/toc/chalmain.html

Montpelier School District
The Web Project (pg. 16)
58 Barre Street
Montpelier, Vermont 05602
(802) 229-4660
http://www.webproject.org

Natchitoches Parish School Board
Goals 2000 (pg. 25)
150 Third Street, Suite 129
Baton Rouge, Louisiana 70801
(504) 342-4253
http://www.challenge.state.la.us/

Newaygo County Intermediate School District
Newaygo County Advanced Technology Service (pg. 11)
4747 West 48th Street
Fremont, Michigan 49412
(616) 924-0381
http://ncats.net/challenge grant/

New York City Board of Education
The Eiffel Project (pg. 19)
525 West 120th Street
Brooklyn, New York 10027
(212) 854-7835
http://www.ilt.columbia.edu/eiffel/execove.htm

Norfolk Public School District
The Education Connection (pg. 11)
525 Main Street, Suite 105
Laurel, Maryland 20707
(301) 317-0110
http://educationforecast.org

Old Orchard Beach School District
Electronic Learning Marketplace (pg. 9)
28 Jameson Hill Road
Old Orchard Beach, Maine 04064
(207) 934-5751
http://www.elm.maine.edu/

Olympia School District
Generation Why (pg. 13)
1113 Legion Way SE
Olympia, Washington 98501
(360) 753-8835
http://kids.osd.wednet.edu/genwhy/index.html

Pekin Public School District #108
Learning Community 2000 (pg. 23)
501 Washington Street
Pekin, Illinois 61554
(309) 346-7276
http://www.pekin.net/pekin108/lc2000/index.

Philadelphia School District
Philadelphia's Technology Challenge Grant Consortium (pg. 25)
JFK Center
734 Schuylkin Avenue, Room 614
Philadelphia, Pennsylvania 19146
(215) 875-3789
http://www.philsch.k12.pa.us

Pueblo of Laguna Department of Education
Four Directions (pg. 19)
P.O. Box 207
Laguna, New Mexico 87026
(505) 552-6008
http://www.4directions.org

Richland County School District One
Richland Clicks! (pg. 13)
1225 Oak Street
Columbia, South Carolina 29204
(803) 733-6153
http://www.richlandone.org/dateline/n&v.html

San Antonio Independent School District
San Antonio Technology in Education Coalition (pg. 16)
141 Lavaca Street
San Antonio, Texas 78210
(210) 299-5648
http://www. san-antonio. isd. tenet. edu

San Diego Unified School District
The Triton Project (pg. 17)
1775 Chatsworth Blvd. #143
San Diego, California 92107
(619) 225-3416
http://www.edtech.sds.k12.ca.us/triton

San Mateo County Office of Education
Silicon Valley Challenge 2000 Multimedia Project (pg. 9)
10 1 Twin Dolphin Drive
Redwood City, California 94065
(415) 802-5444
http://www.smcoe.k12.ca.us

Sanger Unified School District
Technology in Nature in Sanger (TINS) (pg. 16)
1905 7th Street
Sanger, California 93657
(209) 875-6521, ext. 225

Seattle Public Schools
The Seattle Community of Learners System (pg. 25)
2120 S. Jackson Street
Seattle, Washington 98144
(206) 298-7135

Seward School District
The Connection Project (pg. 15)
410 South Street
Seward, Nebraska 68434
(402) 643-2941
http://ois.unomaha.edu/connections/

Socorro Independent School District
A Community of 21st Century Learners for El Paso (pg. 25)
12300 Eastlake Drive
El Paso, Texas 79927
(915) 860-3438
http://challenge.coe.utep.edu/

Southeast Education Service Center
State of Utah Resource Web (SURWEB) (pg. 23)
P.O. Box 1438
Price, Utah 84501
(435) 637-1173
http://www.surweb.org

Summit County Office of Education
New^3: New Technology, New Knowledge, New Work (pg. 13)
420 Washington Avenue, Suite 200
Cuyahoga Falls, Ohio 44221
(330) 945-5600
http://www.sunimit.k12.oh.us/new3

Sumter School District Two
Extending Learning through Community and Family (pg. 23)
P.O. Box 2425
Sumter, South Carolina 29151
(803) 469-6900 ext. 511
http://www.sumter.k12.sc.us

Sweetwater Union High School District
ACT Now! Project (pg. 11)
113 0 Fifth Avenue
Chula Vista, California 91911
(619) 585-7813
http://www.suhsd.k12.ca.us/actnow

Todd County School District 66-1
VISIONS TECWEB (pg. 19)
P.O. Box 87
Mission, South Dakota 57555
(605) 856-4869 ext. 237
http://www.tcsdk12.org

Towanda Area School District
New Vision (pg. 11)
Central Susquehanna IU 16
76A, RD-2
Ashland, Pennsylvania 17921
(717) 874-2365
http://www.trineck.k12.pa.us/ntdl.html

Volusia County School Board
The Career Connection To Teaching With Technology (pg. 9)
125 South Clyde Morris Blvd.
Daytona Beach, Florida 32114
(904) 226-0355

Waukegan Public Schools
Technology and Learning Collaborative (pg. 25)
1201 N. Sheridan Road
Waukegan, Illinois 60085
(847) 360-5440
http://www.nslsilus.org/Washington/demo.html

Westside Community Schools
The Community Discovered (pg. 23)
3534 South 108th Street
Omaha, Nebraska 68144
(402) 390-8323
http://communitydisc.wst.esu3.k12.ne.us/default.html

The project descriptions in this publication are based wholly or in part on information contained in the original Challenge Grant applications. For more current and comprehensive information, readers should contact the projects directly via mail or telephone or visit their web sites, if available.